

REMARKS

Applicants acknowledge receipt of the Office Action dated 5 June 2007, in which the Examiner rejected claims 1, 2, 8, 10, 14, 15, and 20 as anticipated by US Patent 7,104,344 to Kriesels et al. and indicated that claims 3-7, 9, 11-13 and 16-19 would be allowable if rewritten in independent form.

Applicants have amended the claims and submit that the case is in condition for allowance for the reasons set out below.

Claim rejections under 35 USC § 102

In rejecting claims 1, 2, 8, 10, 14, 15, and 20 as anticipated by Kriesels, the Examiner states that Kriesels "discloses rotated shear cutters (4) having flat impact surfaces, hydraulically driven domes axial impact cutters (7) arranged to impact the formation before the shear cutters." Applicant respectfully disagrees.

First, Kriesels discloses a two-part bit, in which percussion cutters (7) are mounted on the percussion part (5) and drilling cutters (4) are mounted on the rotational body (2). According to col. 3, ll. 8-19, the percussion part (5) moves up and down relative to rotational body (2) during drilling, while drilling cutters (4) stay in constant contact with the bottom of the borehole. Because drilling cutters (4) are in constant contact with the bottom of the hole, it cannot be said that the percussion cutters (7) impact the bottom of the hole before the drilling cutters do, as required by the present claims.

While Applicant therefore respectfully submits that claim 1 as-filed is distinguishable over the Kriesels reference, Applicant has nonetheless amended claim 1 to further emphasize the distinctions. Specifically, claim 1 has been amended to require that "both of said axial and said shear cutters receive percussive impact." This is not the case in Kriesels, which does not apply percussive impact to rotational body (2) and therefore does not apply percussive impact to drilling cutters (4). Because Kriesels explicitly teaches the separation of percussion from drilling (scraping), it would not be obvious to modify Kriesels so as to produce a bit in which both types of cutters received impact forces.

For all of these reasons, Applicant respectfully submits that claim 1 is in condition for allowance, along with claims 2, 8, 10, 14, 15, and 16-20, which depend from it.

Allowable claims

The Examiner indicated that claims 3-7, 9, 11-13, and 16-19 would be allowable if re-written in independent form. Applicant agrees with the Examiner, and have amended claims 3, 4, 9 and 11 so as to place them independent form. Claims 5, 6, 7, and 12 depend from the amended claims and are therefore also allowable.

Claims 10 and 16-19 have not been amended but Applicant submits that they are allowable and in condition for allowance for the reasons set out above with respect to claim 1.

Citation of Reference

The reference cited in the Office action, US Patent 7,104,344 to Kriesels, does not appear to have been cited on a Form 1149 (by Applicant) or Form 892 (by Examiner). In order that the reference be made of record in the present case, Applicant respectfully requests that the Examiner include it on a Form 892.

Concluding remarks

Applicant believes that every ground for objection and rejection raised in the Office Action has been addressed. Applicant therefore respectfully submits that the application is now in condition for allowance.

In the event the Examiner has any questions or issues regarding the present application, he is invited to telephone the undersigned prior to the issuance of any written action.

Respectfully submitted,
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